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Seed and Plant Introduction and Distribution,

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ARABIAN ALFALFA (*Medicago sativa* var.).

The variety known as Arabian alfalfa, as its name indicates, comes from Arabia. It is especially adapted to the warm climate of the southwestern United States. It is badly winterkilled in the States where the winters are at all severe. There is, however, a small percentage of hardy plants, and if much of the stand winterkills seed can be saved from the survivors and in this way a hardier strain be secured.

The growing season of Arabian alfalfa is longer than that of the ordinary alfalfa, as it commences growth earlier in the spring and continues it much later in the fall. In southern California it has shown itself able to grow throughout the winter. This makes it valuable for pasture purposes, especially in the late fall and winter, when other green forage is very scarce.

Another noteworthy characteristic of Arabian alfalfa is its quick recovery and rapid growth after cutting. This remarkably fast growth continues until the plant comes into bloom. It is important to cut this variety when the new shoots at the base are starting. This is usually when the alfalfa is about one-tenth in bloom. After this period the rapid growth ceases, the hay deteriorates in quality, and the next cutting is materially retarded. This last effect is due, in part at least, to the fact that when the plants come into bloom the crown buds commence growth. These are to form the stalks of the next cutting. If these grow so long as to be clipped off when the older stalks are cut, the injury to the new growth is serious. If the alfalfa is cut when in very early bloom, as indicated, one to three more cuttings of this than of the ordinary alfalfa can be procured in the long growing season of the Southwest.

When making comparative tests between this and ordinary alfalfa, each plot should be cut when it is in early bloom irrespective of the condition of the other plots. It is not fair to any of the varieties to delay or hasten the cutting of any of them. Where these plots are under irrigation such arrangements should be made that each plot can be irrigated separately shortly before cutting, so that there may be no delay in the early growth of the succeeding crop.

Arabian alfalfa has shown itself to be able to produce a cutting in twenty days from the previous cutting, whereas ordinary alfalfa requires thirty days to make the same growth. In one test three cuttings of Arabian alfalfa were secured in sixty days, as compared with two cuttings of the ordinary variety. It is only by cutting Arabian alfalfa as above indicated, however, that the maximum number of cuttings can be secured.

The plot of Arabian alfalfa should be located at one side of the experimental tract, so that it can be cut more frequently and without injury to the plots that are not ready to cut at the time. It is important that the relative palatability of Arabian alfalfa be determined. This can be learned by allowing various classes of animals to choose between this and ordinary alfalfa as hay, pasturage, or as green feed cut and fed to them.

Owing to the large size of the seed it is necessary to use nearly twice as much seed per acre as would be required of ordinary alfalfa. The scarcity of the seed of Arabian alfalfa, even in Arabia, makes it highly desirable that the seed be grown in this country. A portion of the Arabian alfalfa plants should be allowed to stand for seed after the first season of growth. In this way seed can be secured for the further extension of this valuable strain.

When a variety test is being made it is important that a map or rough diagram of the experimental plots be made at the time of seeding. Later on, the dates and, if possible, the weights of each cutting should be recorded. A copy of this map or diagram should be included in your report to the Department of Agriculture at the end of the season.

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